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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,500	11/14/2003	Sivakumar Ramasamy	0275M-000666/COD	1018
27572	7590	07/12/2004	EXAMINER	
HARNES, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			SHAW, CLIFFORD C	
			ART UNIT	PAPER NUMBER

1725

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/714,500

Applicant(s)

RAMASAMY ET AL.

Examiner

Clifford C Shaw

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 6-9 is/are rejected.
- 7) ☒ Claim(s) 5 and 10 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1223.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Detailed Action

1.) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.) Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Coombs (3,671,710, cited by applicant). The claim is broad enough to read on the welding stud shown as element 10 in figure 1 of Coombs (3,671,710). Note that stud 10 includes a fastener head 10 and an annular weldment area at 16 with an equal radius to head 14, and a thickness (as defined by opening 18) that is less than the thickness of 14. The stud 10 further includes a exterior threaded surface at 12.

3.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.) Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coombs (3,671,710). The only aspect of the claim to which the rejection above does not apply is the provision for a “weakened” section adjacent the head. To the extent that the term “weakened”

Art Unit: 1725

imposes any structural limitation on the subject matter being claimed, it is obvious over the stud in Coombs (3,671,710). The threaded portion 12 in Coombs (3,671,710) will obviously be weakened in some sense compared to the head portion 14 at least because it has been machined to have threads, thereby creating weaknesses that do not exist in the unmachined portion 14.

5.) Claims 1, 2, 4, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the British document no. GB2065011A, cited by applicant, taken with Coombs (3,671,710). Figure 1 and the discussion on page 2 of the British document no. GB2065011A discloses the subject matter claimed including a stud welded to a metal/polymer laminate, the stud having a head with first and second thicknesses and a threaded portion 10. The claims differ from the British document no. GB2065011A in calling for the second head thickness to be less than the first head thickness (in the British document no. GB2065011A, the two thicknesses are disclosed as being the same), and in claim 8, calling for a first thickness of 1.5 mm. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have made the second head thickness in the British document no. GB2065011A less than the first head thickness as claimed, the motivation being the teachings of Coombs (3,671,710) that it is advantageous to form a weld stud with the welding annulus thickness less than the overall head thickness (see the structure of head 14 in the British document no. GB2065011A). In regard to the 1.5mm thickness in claim 8, it would have been obvious to have used in particular thickness in the stud of the British document no. GB2065011A, including that claimed, the motivation being to match the geometry of the stud in the British document no. GB2065011A to the requirements of a particular welding job.

6.) Claims 5 and 10 are objected to for depending from rejected claims, but would be given favorable consideration if recast in independent form to include all of the limitations of the parent claims. None of the prior art of record discloses or suggests a stud to structure construction as set forth in claim 5 with the particular failure load configurations as set forth in the claim. None of the prior art of record discloses or suggests a welding stud with the particular relative first and second head thicknesses as set forth in claim 10.

7.) Claim 3 is allowable over the prior art of record. None of the prior art of record discloses or suggests a welding stud with the particular relative first and second head thicknesses as set forth in the claim.

8.) The patents to Kelemen et al. (2,708,129), Woodling (2,760,797), Flynn et al. (3,094,607), Sherry et al. (5,579,986), and the pre-grant publication to Sichtermann et al. (2002/0030037) are cited to show prior art welding studs.

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

Art Unit: 1725

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw
Primary Examiner
Art Unit 1725

July 8, 2004